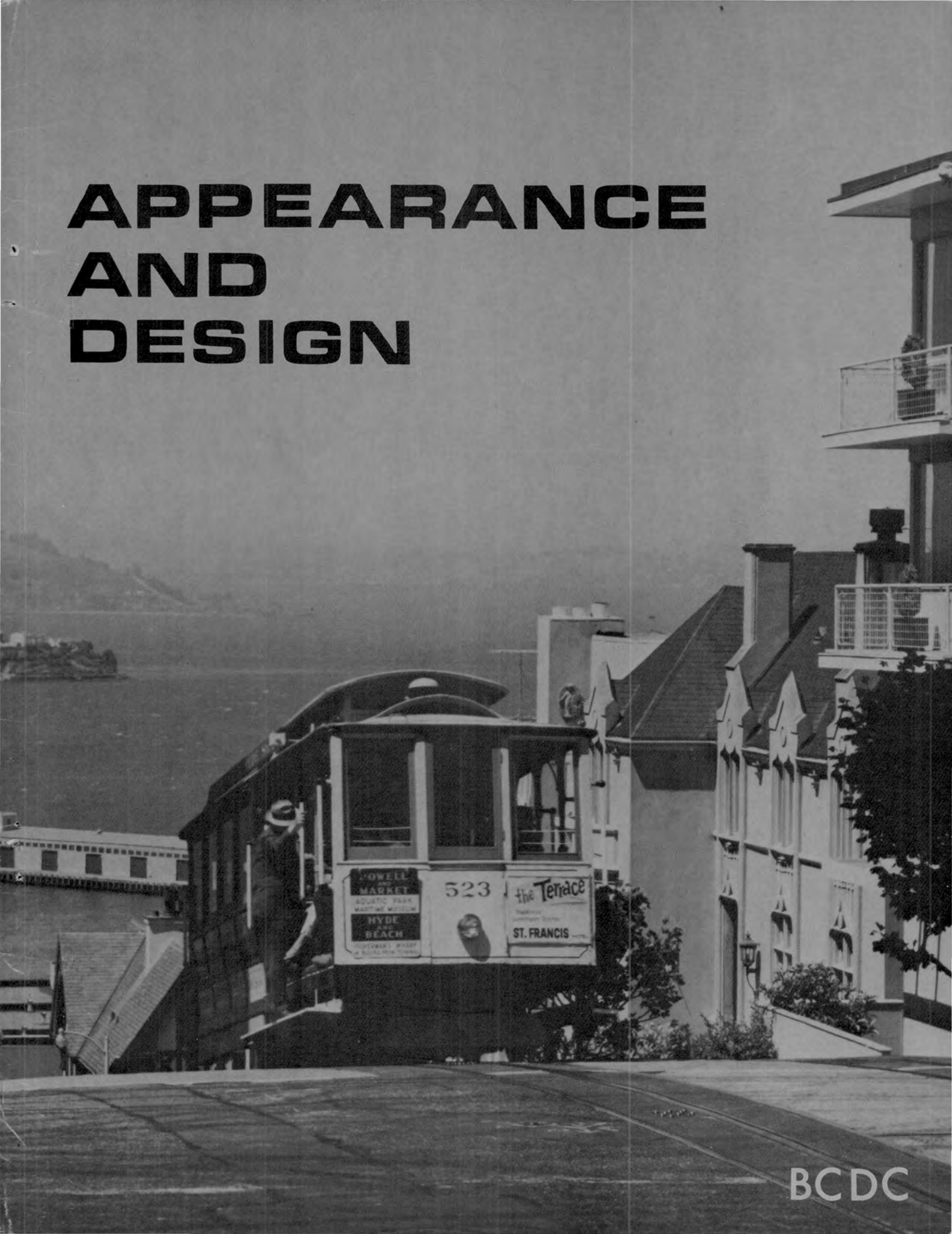
APPEARANCE AND DESIGN



BCDC

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
507 Polk St., San Francisco 94102 557-3686

REVISED REVISED REVISED

Possible Bay Planning Conclusions Based on the Report on Appearance and Design

1. The appearance of the Bay, and man's enjoyment of it as a scenic resource, extensively enhances daily life in the Bay Area.

2. To increase opportunities for people to have pleasurable and leisurely physical and visual contact with the Bay, the General Development Guide (foldout chart) and the Special Development Guides Nos. 1-15 (pages 9 to 15 of the summary) shall be employed as applicable in preparing the Commission's plan for the Bay and shall be incorporated, as applicable, in the Commission's recommendations for carrying out the plan, except as follows:

Substitute for Nos. 2 and 3 (page 9):

2. Include in every new development maximum feasible opportunity for pedestrian access to the waterfront. If no such access can be provided, the development should not be allowed on the waterfront unless it must of necessity be there (i.e., unless it is a factory using Bay waters in its processing, a shipping terminal, etc.).

Substitute for No. 7 (page 11):

7. Design all Bayfront developments to enhance the pleasure of the user or viewer of the Bay. Planning of all aspects of waterfront development should therefore be guided by esthetic design considerations provided by professionals such as landscape architects, urban designers, or architects, working in conjunction with engineers and professionals in other fields.

Substitute for No. 11 (page 13):

11. Remove "unnatural" debris from sloughs, marshes, and mudflats that are to be retained as part of the ecological system, and restore them to their former "natural" state if they have been despoiled by human activities.

Adopted by the Commission at its meeting of 9/22/67

APPEARANCE AND DESIGN

Part of a Detailed Study of San Francisco Bay

Summary of the report, "Appearance and Design: Principles for Design and Development of San Francisco Bay," by Rai Y. Okamoto and William H. Liskamm.

The San Francisco Bay Conservation and Development Commission is charged with preparing a comprehensive and enforceable plan for conservation of the waters of the Bay and for development of the Bay shores.

This is one of a series of informational reports designed to help the Commission reach decisions as to future uses of the Bay. These decisions will form the foundation for the Commission's plan.

Each report focuses on a specific aspect of the Bay. The relationship of this report to others in the series may be seen at a glance on the next page.

This summary report was prepared by the BCDC staff to focus on the most important Bay planning considerations suggested by the more extensive technical report.

Possible planning conclusions based on this report are listed at the end. These are only tentative, since the conclusions based on this report will need to be considered later, after other reports on different aspects of the Bay have also been completed.

San Francisco Bay Conservation and Development Commission

San Francisco, California

September 1967

BACKGROUND REPORTS FOR PLANNING SAN FRANCISCO BAY

Titles are tentative except where * indicates report has already been published.

The Bay as a Resource

Group 1

*Tidal Movement
*Sedimentation
*Pollution
*Fish and Wildlife
*Marshes and Mud Flats
*Flood Control
*Smog and Weather
*Salt, Sand, Shells and Water
Appearance and Design
*Geology of San Francisco Bay
*Fill

Background for Planning: The Future Bay Area

Group 2

*Economic and Population Growth

Planning the Bay: Transportation

Group 3

Maritime Commerce and Ports
*Airports on the Bay
Surface Transportation

Planning the Bay: Uses of Land and Water

Group 4

Recreation Needs
Industrial Needs
Residential Needs
*Public Facilities and Utilities
*Refuse Disposal

Carrying out the Plan

Group 5

Ownership of the Bay
Land Development Controls
Machinery for Plan Effectuation

INTRODUCTION

"You can climb Twin Peaks and see several hundred square miles of bay spread around you like a glowing tapestry of light and color. More often the bay's impact comes unexpectedly. Rounding a corner in the heart of the city, you come upon it suddenly in the distance between nearby houses, blue in the sun . . . .

"The bay seems always around you. It shines in the distance beyond the long rows of bulging bay-windowed flats. It appears at the bottom of the streets that drop dizzily down from the city's heights . . . .

"It hits you with a quick blow in the innards as you drive over a rise of Russian Hill and see its sudden gleam and sparkle between nearby trees. It comes to you as a series of brief, breathcatching vignettes as you rise on the Powell cable car over Nob Hill and get successive glimpses of it at the ends of the cross streets . . . ."

Harold Gilliam
San Francisco Bay, p. 21

To the viewer, San Francisco Bay and its surrounding hills are things of great beauty. Tourists and residents alike find their lives enriched by the pleasures of viewing the Bay. The many moods of the Bay, and the psychological impact of the Bay on those who view it, have often been written about -- as, for example, in the lines of Harold Gilliam quoted above. These psychological effects and reactions are difficult to identify and measure, but there is no doubt they exist. It has been estimated that a Bay view adds at least 8 to 10 per cent to the value of a home, office, or apartment building in San Francisco; and there is little question the Bay is a major visitor attraction to the tourist industry.

Thus, man's appreciation of the Bay as a major scenic and environmental resource is an extremely important element in planning for the Bay. It is within man's power to deplete the scenic resources of Bay and hills -- or to enhance them.

WHO SEES AND ENJOYS THE BAY

The people who see the most of the Bay and who are able to derive the most pleasurable reaction from observing it are (a) those who are moving on the surface of the Bay, and (b) those at leisure at either the water level or at elevated locations overlooking the water. Next most able to enjoy the Bay are passengers in cars or in aircraft. Perhaps least affected -- but certainly not unaffected -- by the Bay are waterfront workers, regardless whether they are at the water's edge or have a view of the water from above. The concern about maintaining and improving the appearance of the Bay is, therefore, directed at leisure (including tourist) enjoyment of the Bay, and those who glance at the Bay while they are working or commuting.

A VERBAL DESCRIPTION OF THE BAY'S APPEARANCE

While San Francisco Bay is a single body of water, its appearance varies greatly from one part to another:

1. South Bay

Due to the flatness of the land bordering the South Bay, the motion, shape, and even the existence of this part of the Bay are not easily perceived from its rapidly urbanizing edge. Extensive shallows and tidal flats dominate the view. Odors from pollution along both east and west sides retard development near the water, especially in the southeast due to winds from the west. As the water narrows to the south, views of the Bay from hills on the east and west progressively lose sight of, and therefore a significant relationship with, the Bay. South of Mountain View and Fremont, the salt ponds behind dikes are more dominant parts of the view than is the Bay itself; due to the salt evaporators and slow-moving sloughs, the water color ranges from dark yellows and reds through greens to blue.

For the majority of the population living near it, the South Bay (toward its southern end) has neutral or negative implications. Sparsely used for recreation, it is only beginning to develop positive connotations (through Bayshore housing developments, Coyote Point recreation, and boating). South of San Leandro nearly all of the East Bay frontage has primary

connotations of wasteland, sewage treatment plants, pollution, and smell. Low visual angles almost eliminate any view of the water. South Bay views are generally so distant that activity on the water is barely perceptible; the experience is typically that of a vast space. For the large population of Santa Clara County, "connection" or "association" with the Bay is weak; this could be at least partly overcome, however, with greater public access to the Bay and greater recreational uses of the Bay.

2. Middle Bay and Golden Gate

Water motion is greatest in this area of the Bay due to accelerated currents at and near the Golden Gate and exposure to open sea. With the exception of the eastern flats, the water edge is characterized by steeper slopes and deeper water than in other parts of the Bay. Three major bridges and the East Shore Freeway afford exceptionally strong visual relationships with the water, as do the hills of San Francisco, Marin, Richmond, and the East Bay. Exposure of mud flats by the ebbing tides produces marine scents along the east shore and, less noticeably, in Richardson Bay and along the Corte Madera salt marsh. In addition, pollution odors are also evident in some areas. Well-defined by steeper slopes, the water-land configuration is clearly seen.

Due to its sharply-defined perimeter and the visibility of the water to a large surrounding population, many broad and complex associations with the water itself occur here. Relief from urban intensity is communicated by the expanse of Bay waters, by unbuilt-upon Angel Island, and by the Golden Gate headlands. Dramatized by its surrounding land forms, the Middle Bay's urbanized edge and active uses are perhaps the richest and most memorable "images" distinguishing the Bay Area to visitor and resident alike.

3. San Pablo Bay

Any single view of the roughly circular San Pablo Bay, ten to twelve miles across, includes a variety of motions and colors. The extensive northern shallows produce short, choppy, whitecaps in even moderate winds, and cause a blue-brown color as wave and tidal motion disturb the bottom. The minor river and tidal currents in the northern and western parts of the Bay give a motionless appearance to the water on windless days, heightening its vast scale. Waste discharges from industry occur along the Contra Costa County edge; odors there are clearly from factories and refineries, not the Bay. Salt-evaporator and marshland odors characterize the north and western edges, when winds are on-shore. Due to its dimensions, typical views from high or low angles include a vast sky (on clear days) and often strong sun reflections near the horizon.

The size of the Bay subdues the prominence of factories on its southern edge and Hamilton Air Force Base's jet-age facilities. Spots of intense visual interest occur along the industrial Contra Costa shoreline, and the looming form of Mount Tamalpais provides a serene and majestic land form to the southwest.

4. Carquinez Strait

Steep slopes and the confined channel emphasize, by their contrast, the apparent motion and texture of the water. The land form accelerates surface winds and the water's flow. Typical views from surrounding heights clearly display the relationship of land to water. The twin crossing over the strait (the principal northeast "gateway" or "entrance" to the Bay Area) is well-placed for major views, but the design of the bridges interferes badly with these views. Interest in the water is heightened by deep-water shipping in such a narrow channel and by marine activities at Crockett,

Mare Island, Martinez, and Benicia. The water here appears darker than in adjacent Bays, due to steeper visual angles, deeper water and the shimmering surface.

As a symbolic connection between the California central valleys and the Bay, the straits carry many implications of both areas.

5. Suisun Bay

Two-thirds of Suisun Bay's edge can be seen from roads around it, but only from the southern edge is it possible to perceive the motion and texture of the water. From low visual angles, silt-bearing water, seen against hills, reflects earth hues. From higher visual angles with greater sky reflection, water appears dark blue-grey. Shallow water characteristics of short fetch, short chop, and small whitecaps prevail. Although ebb tide exposes slough flats and marsh bottoms, as yet there is little pollution in the northern area, and therefore, little odor. Diked islands appear as part of the marshland waterscape. A wide, general space including water and islands is apparent on clear days, framed by the rolling hills. A few "verticals" in the horizontal landscape are powerful visually because of their uniqueness: Mount Diablo, the ships in "mothballs," and Pacific Gas and Electric Company's power plants.

Lying outside the space formed by the hills of the Bay, Suisun Bay is not well known to the Bay Area population as a whole. The new Interstate Route 680 extension from Concord north to Cordelia and Sacramento exposes Suisun Bay to thousands for the first time. With horizontal rolling hills, shallow water, and adjacent flats, the northern land and water area has a natural, undisturbed appearance. Small tidal and current variations suggest languid qualities. The deep-water ships and industrial activity of the southern shore contrast with the tranquil backdrop to the north.

EXISTING PROBLEMS

Enjoyment of the Bay is adversely affected by:

1. Shoreline developments and roadways that tend to block public access to, and views of, the Bay.

2. Shoreline developments that are of poor quality, or that are inappropriate to a waterfront location.

3. Collections of debris in shoreline marshes, mudflats and sloughs.

4. Deterioration of water quality and reduction of wildlife in the Bay due to poorly-designed filling, insufficient sewage treatment, and litter from pleasure and commercial vessels.

5. Failure to take full advantage of the dramatic view potential from hills surrounding the Bay because of poor road layout and poorly placed buildings or plantings. (There are many notches, passes, and tunnels through the rim of hills around the Bay on which the traveler is suddenly introduced -- or reintroduced -- to views of the Bay.)

GENERAL DEVELOPMENT GUIDE

The basic objective of this General Development Guide is to increase opportunities for people to have pleasurable and leisurely physical and visual contact with the Bay.

Methods of achieving the objective will vary according to (a) the shape of the shoreline in relation to the Bay, and (b) the degree of slope of the land back from the shore. Figure 1 establishes 12 classifications of shoreline configurations and elevations.

Figure 2 shows the distribution of different land-shore configurations around the entire Bay. The map gives a general indication of where each of the classifications can be found around the Bay; in many instances, the detailed topography will be different

FIGURE 1

Basic
Land-Water
Classifications

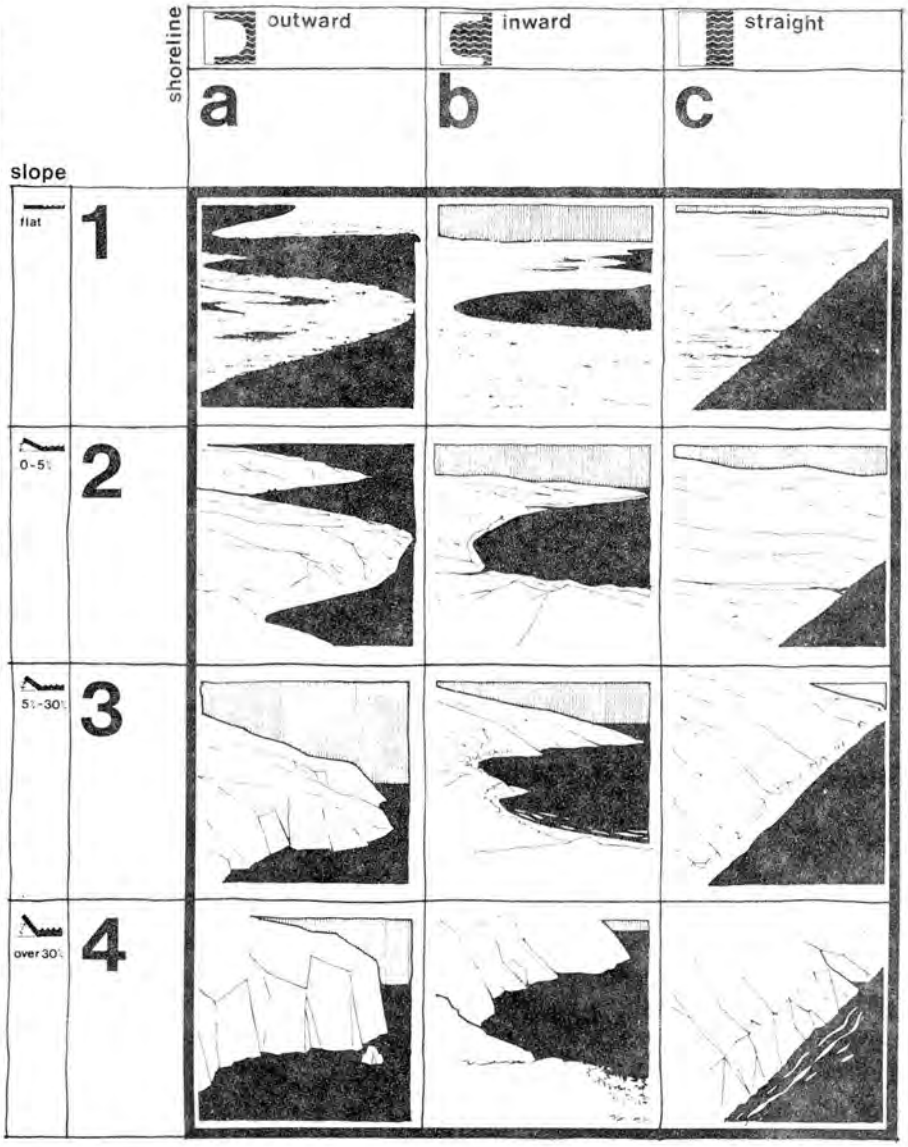
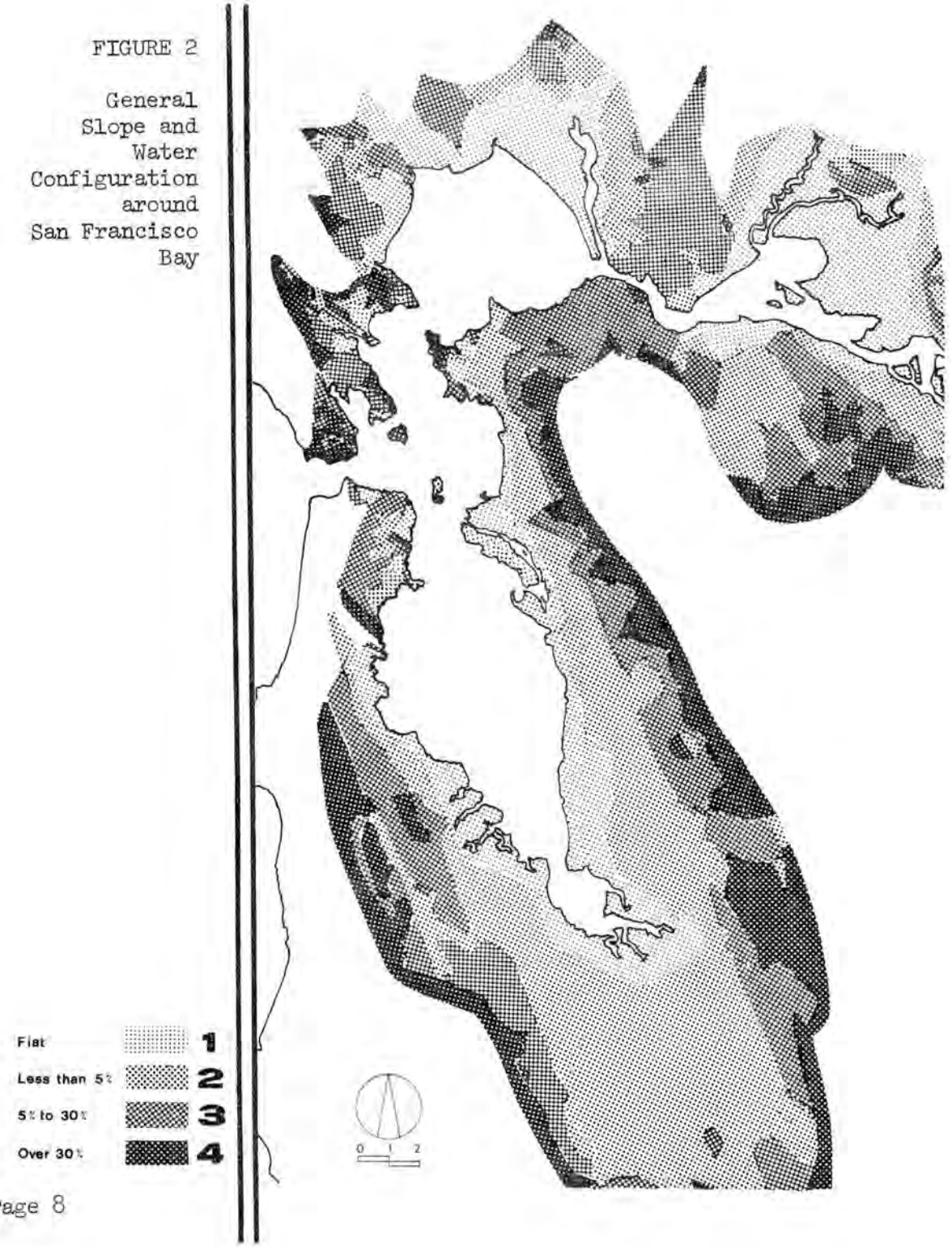


FIGURE 2

General Slope and Water Configuration around San Francisco Bay



GENERAL DEVELOPMEN GUIDE

straight

C CLEAR, DIRECTIONAL RELATION TO THE BAY, ESPECIALLY WITH STEEP SLOPES, DIRECTS VIEWS PARALLEL WITH THE WATER'S EDGE. UNLIKE PLAN FORMS "a" AND "b", THE OVERALL EVENNESS OF THE WATER'S EDGE REQUIRES THE INTRODUCTION OF ADDITIONAL ELEMENTS TO ESTABLISH A SENSE OF PLACE, ORIENTATION AND VISUAL FOCUS. PIERS, A YACHT BASIN, A NEARBY ISLAND, ARE TYPICAL FOCUSING ELEMENTS OFFERING THIS SENSE OF POSITION ON THE OTHERWISE UNBROKEN COASTAL FACE. CARE MUST BE TAKEN THAT DEVELOPMENT DOES NOT CREATE BREAKS AT VISUALLY DISTURBING POINTS, OR AT NEW POINTS COMPETITIVE WITH NATURAL BREAKS.

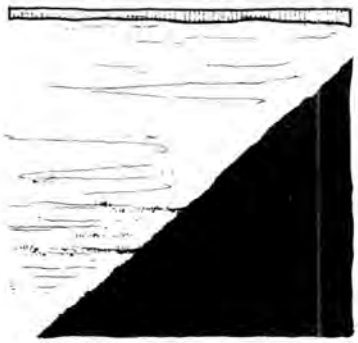
slope

flat

1 PHYSICAL QUALITIES: THIS LAND SUBJECT TO FLOODING, POOR DRAI ANGLE BAY VIEWS AND INLAND VIE ARE USUALLY WILD LIFE AREAS.

POTENTIALS: THE EDGE IS EASY LANDMARK STRUCTURES AT THE EDG FROM INLAND VIEWING POINTS. S FOR RECREATION TO FURTHER EMPH STRENGHTEN ORIENTATION. ECOLO MARSHLAND.

D E ER, ORE S A N E AT- OR- IN IN



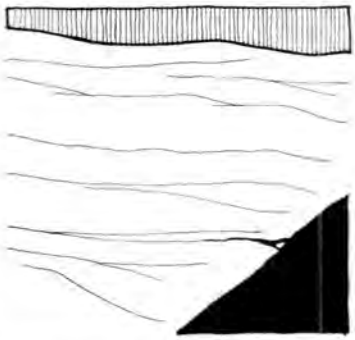
ONE OF THE LEAST PHYSICALLY INTERESTING SHORELINE CONDITIONS - DEVELOPMENT CAN PROVIDE FOCI AND VISUAL STIMULATION; ELEVATED VIEWING POSITIONS AND LANDMARKS COULD AID ORIENTATION. CLUSTER DEVELOPMENT WOULD RETAIN BAY VIEWS FROM INLAND AREAS AND MARSHLAND PRESERVATION WILL HELP MAINTAIN BIOLOGICAL BALANCE. WHEN DIKING IS REQUIRED PROVISION SHOULD BE MADE FOR PEDESTRIAN OVERLOOKS SO THAT THE BAY IS NOT HIDDEN BEHIND DIKES. IN NO OTHER LAND CONDITION ARE HIGH VOLTAGE DISTRIBUTION ROUTES MORE VISUALLY DISTURBING (WEST AND EAST SIDES OF THE SOUTH BAY) DUE TO THE ABSENCE OF OTHER CONSTRUCTION. ALTERNATE ROUTES FOR THESE LINES GROUPED WITH TRANSPORTATION EASEMENTS SHOULD BE CONSIDERED.

0-5%

2 PHYSICAL QUALITIES: CHARACTE VELOPABLE. LOW BAY VIEW ANGL HIGH DENSITIES ARE USUAL, PROV AND VIEWS.

POTENTIALS: LOW SITE DEVELOP WOULD PRESERVE VIEWS, MAINTAI AND RIGHT-OF-WAY ALIGNMENTS SH

AND S DS E. O S NEZ LE



THIS LAND-WATER EDGE RELATIONSHIP IS CHARACTERISTIC OF MANY PORTIONS OF THE SOUTH BAY WHERE HEAVY URBANIZATION CONTINUES. BLOCKAGE OF UPHILL VIEWS BY SHORELINE DEVELOPMENT WILL REDUCE THE ABILITY OF THE BAY TO PROVIDE VISUAL EXTENSION OF SPACE. CLUSTER DEVELOPMENT COULD MAINTAIN THIS BAY FUNCTION.

5%-30%

3 PHYSICAL QUALITIES: SLOPES A UNLESS TERRACED AND INHIBIT W HOUSING AND UNIFORM BUILDING GOOD COMPREHENSION OF BAY FOR

POTENTIALS: GOOD FOR RESIDEN HIGHER BUILDINGS ON HIGHER SL HIGH VISTA POINTS SHOULD BE P TOURS. ROUTES AT RIGHT ANGLE FRANCISCO.

TER S CAL TION E A BOVE GE

COMMENTS IN 2c ABOVE APPLY IN THIS CATEGORY UP TO 10% SLOPES. SEE ALSO GENERAL NOTES IN "c" ABOVE.

over 30%

4 PHYSICAL QUALITIES: VEHICUL OF MOST DRAMATIC VIEWS ARE F 90° (GOLDEN GATE, POINT RICH SED BY VIEW EMPHASIZE BAY FO

POTENTIALS: PARTICULARLY SU ESPECIALLY IN PLAN FORM "a". WITH SIGNIFICANT BAY VIEWS") TIAL ACTIVITY AND SELECTED C

E- EW PE O ELOP- TO EC- TA) TER.

THIS FORM OCCURS RARELY IN THE BAY REGION BUT, WHERE THE BAY PASSES THROUGH THE COASTAL RIDGE LINES (GOLDEN GATE AND CARQUINEZ STRAIGHTS), PARALLEL CLIFFS ACCELERATE CURRENTS AND PRODUCE WIND AND WEATHER EXTREMES. THE STRONGLY-FORMED SPACE PROVIDES WALLS AGAINST WHICH THE APPARENT MOTION OF SHIPS IS HEIGHTENED. THIS LAND IS THEREFORE ASSOCIATED WITH THE MOST DRAMATIC AND DYNAMIC PORTIONS OF THE BAY REGION GEOGRAPHY, AND NEEDS PROTECTION BY WELL PLANNED CONSERVATION PROGRAMS.

GENERAL DEVELOPMENT GUIDE

from the general indication and the appropriate development guide for the actual topography should be employed.

The General Development Guide (fold-out chart) provides methods of achieving the design objectives in each of the 12 land-water classifications. It is intended to serve both the prospective developer and the reviewing governmental body as a summary statement of design principles that can be followed in various parts of the Bay to meet the design objectives.

Figure 3 illustrates methods of carrying out some of the design principles stated in the General Development Guide.

SPECIAL DEVELOPMENT GUIDES

In addition to the General Development Guide principles, the following additional principles are required to achieve the objective of increasing opportunities for people to have pleasurable and leisurely physical and visual contact with the Bay.

1. Build shoreline developments in clusters (leaving more open area around them) to increase the amount of shoreline accessible to the public and to permit more frequent views of the Bay. In addition, grounds and landscaping should be low enough to permit views of the Bay from roads and areas behind the developments.

2. Include in every new development maximum opportunity for pedestrian access to the waterfront.

3. Restrict new waterfront developments that cannot feasibly make room for public access to uses that must of necessity be located on the water (e.g., those using the Bay waters for industrial processing or for shipping).

Open Bay's edge to public access by clustering development

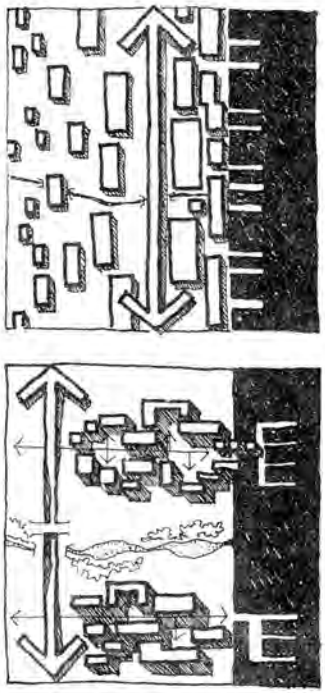
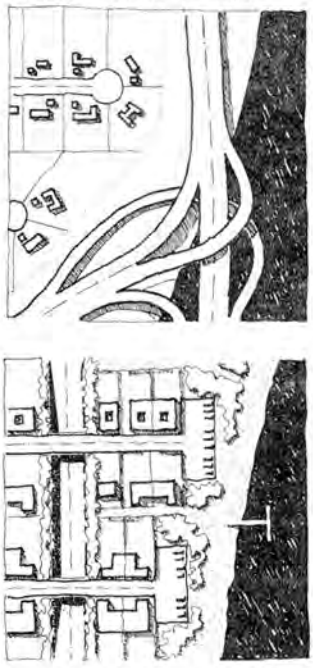


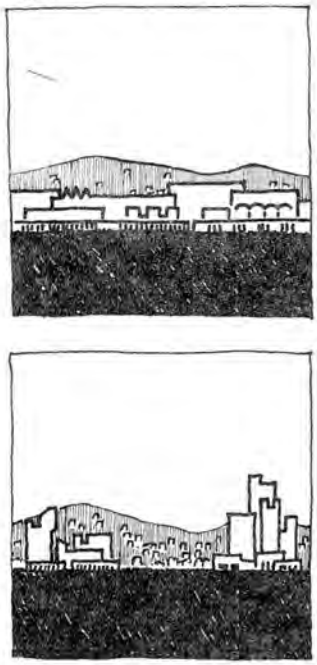
FIGURE 3

Methods of Carrying out Selected Design Principles

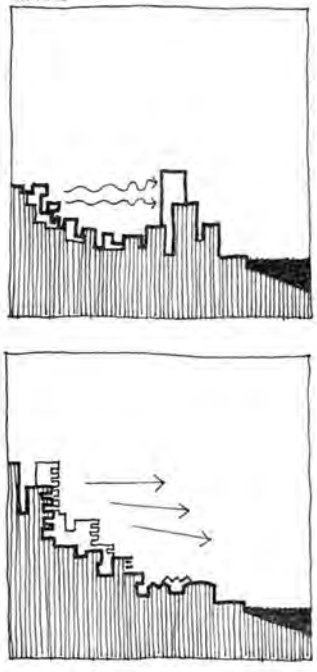
Locate roads so they will not block physical and visual access to Bay.



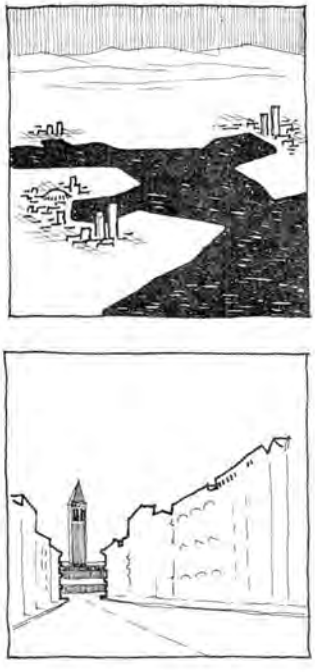
Clustered development at water's edge allows views from inland hills.



Control waterfront development to preserve view from hills



Landmarks at water's edge aid orientation to Bay

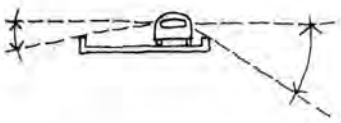


SPECIAL DEVELOPMENT GUIDES

4. Provide public access into some "natural" areas retained as ecological assets to permit study and enjoyment of these areas (e.g., by catwalks or piers in some sloughs or marshes).

5. Design any permitted fills to produce a net increase in the amount of shoreline, for the purpose of providing additional public access to the Bay.

6. Design roads near the edge of the water as scenic parkways for slow-moving, principally recreational, traffic. The right-of-way design should discourage through traffic and provide for safe pedestrian access to the shore.



7. Design all Bayfront developments to enhance the pleasure of the user or viewer of the Bay. To these ends, planning of all aspects of waterfront development should be guided by professional designers such as landscape architects, urban designers, or architects.

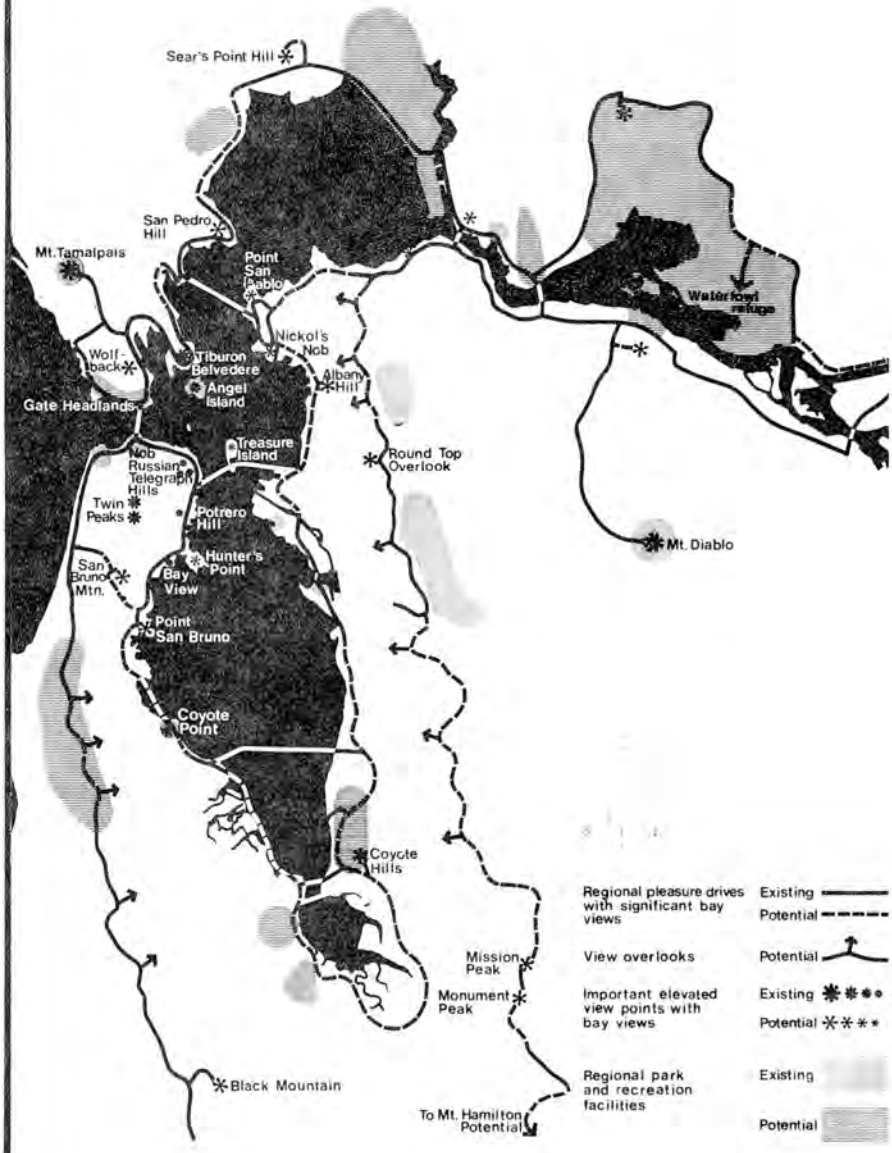
8. Design new or remodeled bridges across the Bay to permit maximum viewing of the Bay and its surroundings by both pedestrians and motorists. Guard rails and bridge supports should be designed with views in mind. Vista turnouts for motor vehicles should be provided at good view locations.

9. Provide Bayshore and high-level scenic parkways approximately as illustrated in Figure 4, with vista points in the general locations indicated.

10. Maintain views of the Bay from further inland or from hills by appropriate arrangements and heights of all developments and landscaping. Design consideration would need to be given to all areas at waterfront locations, and below high-level vista points designated in the preceding paragraph, and the viewpoints

FIGURE 4

Major Existing and Potential Views of Bay



along freeways or "entrance" roads (roads coming over ridges and providing a "first view" of the Bay) shown in Figure 5.

11. Remove debris from sloughs, marshes and mudflats that are to be retained as part of the ecological system, and restore them to their former "natural" state if they have been despoiled by human activities.

12. Design towers, bridges, or other structures near or over the Bay as landmarks that suggest where the waterfront is, to serve as reminders as to the location of the waterfront when it is not visible -- especially in flat areas. But the height of such landmarks should be low enough to assure the continued visual dominance of the hills around the Bay.

13. Avoid additional surface crossings to the extent possible, to preserve the visual impact of the large expanse of the Bay. The design of new crossings deemed necessary should respect the fact that the Bay consists of a series of natural "bowls," "closed" at each end by a constriction. The crossing should be placed at such "ends" between promontories or other land forms that naturally suggest themselves as connections reaching across the Bay (but without destroying the obvious character of the promontory). To the extent possible, crossings should also be of one "family" of structural types (e.g., all might be suspension bridges).

14. Design access routes to Bay crossings in a manner that orients the traveler to his new direction of movement in relation to the water (as in the main approaches to the Golden Gate Bridge). Similar considerations should be given to the design of highway and mass transit routes paralleling the Bay at any elevation (by providing frequent views

Crossings should utilize natural land forms which suggest shore to shore connections

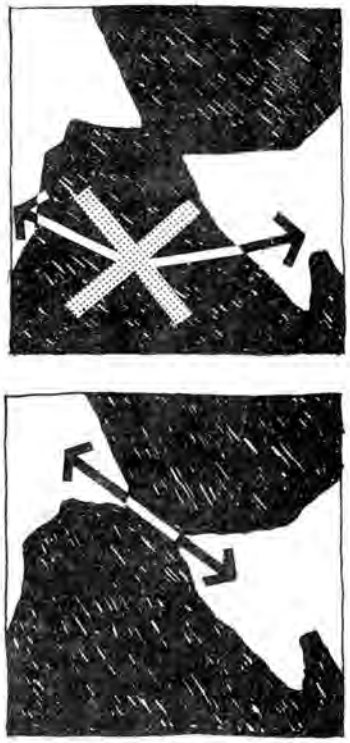
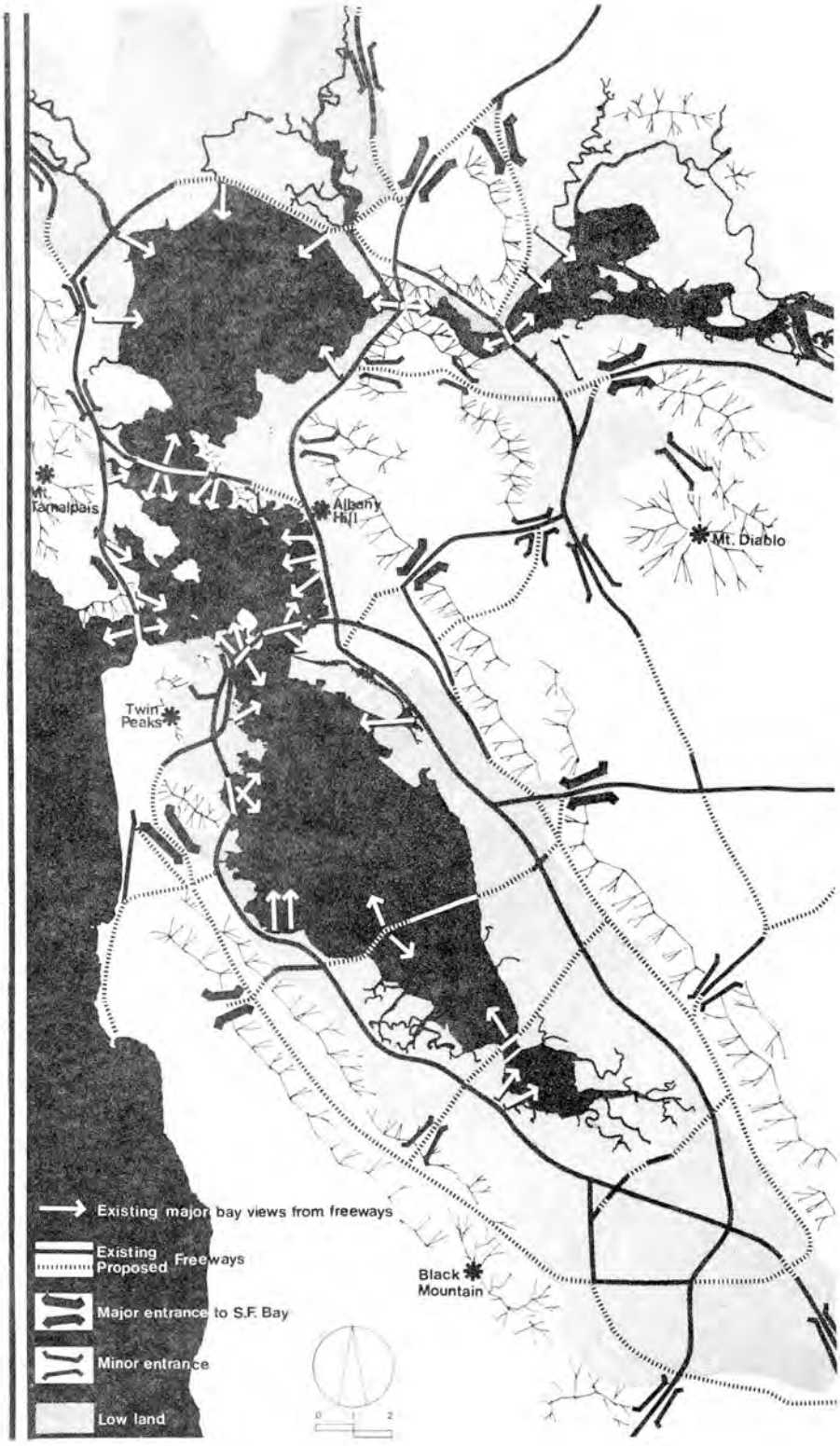


FIGURE 5

Views of Bay from Major Roads



SPECIAL DEVELOPMENT GUIDES

of the Bay or by having turns toward or away from the water made in sight of the water, if possible, so the traveler knows which way he is moving in relation to the Bay).

15. Design developments near the mouths of tributary waterways to preserve the view of the juncture of the tributary with the Bay from as far upstream as the alignment of the waterway will permit, so as to preserve maximum visual contact with the Bay. Developments farther upstream beyond the view of the tributary's mouth should be used for purposes related to the Bay, if at all possible (e.g., marina and boat service facilities or private docks, on navigable tributaries).

ACHIEVING THE DESIGN OBJECTIVES

In addition to the controls and incentives that will be discussed in BCDC planning reports about methods of carrying out the plan for the Bay, a few special, less familiar, "tools" are needed to achieve some of the foregoing design principles.

1. A design review system is needed to evaluate developments that affect the appearance of the Bay. The system must have sufficient control and authority to make it effective. As an example, a twofold approach might involve (a) use by city and county governments, and by all affected regional or state agencies, of a basic design guide for affected developments, and (b) a regional design review board that, by reviewing the proposed design of all projects, could strive for a high level of design quality.

2. The Bay region and the State of California should invoke the national interest in preserving the Bay as a national scenic and ecological resource in every feasible way, such as by establishing the Bay as a national resource comparable to Yosemite or Point Reyes National Parks.

SUMMARY

The Bay is a single physical mechanism, in which actions affecting one part may also affect other parts. The Bay and its surrounding hills are a composition of natural and man-made features. Many man-made features can improve or despoil the appearance of large portions of the Bay scene.

As long as man values the appearance of the Bay, its islands and surrounding hills, special consideration must be given to the design of any development affecting the form and appearance of the Bay, or views of and access to it.